

# GEORGE ENGELMANN BOTANICAL NOTEBOOKS

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10. *Opuntia spinifera* HB. Rep. Jan 1<sup>st</sup> 1869

name apparently correct.

plant bushy, patulous; 2-3 feet high.  
joints 7-9 or even 10 inches long by 5 to 6 wide.  
thin, very slightly tubercled.

areoles  $1\frac{1}{4}$  -  $1\frac{1}{2}$  inches apart, orbicular  
all spine-bearing, strongly bristly; especially  
where they are confluent on upper edge, bristles yellow

spines 1-3, slender, straight, acicular; terete  
bristly and spines longer and more numerous with  
age - the latter 3-6-7 in number, at last decaying  
while bristles increase in number and areole size

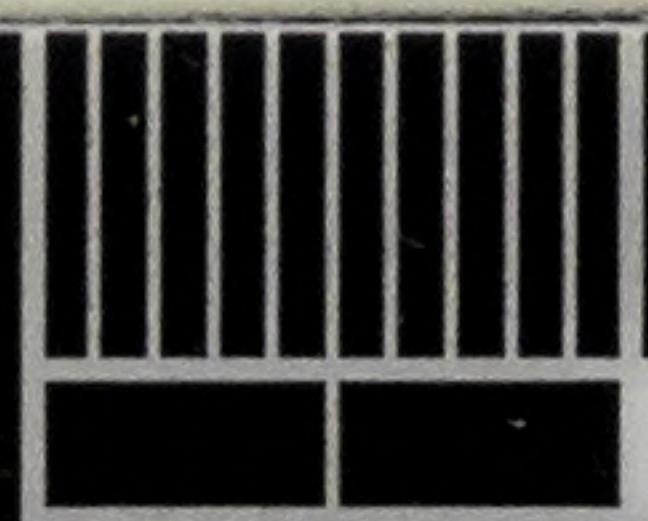
32 same plant. 3 feet high, bushy; joints  
obovate, larger ones 2 inches long by 6 wide.

49 same plant, a good specimen 4 feet high, bushy  
joints 6-8 inches long by 5-7 wide, broadly  
obovate; not tuberculated at all

areoles orbicular, large, very bristly  
about  $1\frac{1}{4}$  -  $1\frac{1}{2}$  inches apart, oldest ones  
larger and very bristly, but bearing no  
spines.

Spines 1-3 or 4 in number, or none  
yellow, flat, acicular  $\frac{1}{2}$  -  $1\frac{1}{2}$  inches long

73. same plant, 3 high, wide spreading, 4 feet  
old trunk with no spines, but orbicular  
areoles of bristles large, bristles long and  
stiff. - Joints 6-8" x 5-7", broadly oval  
obovate



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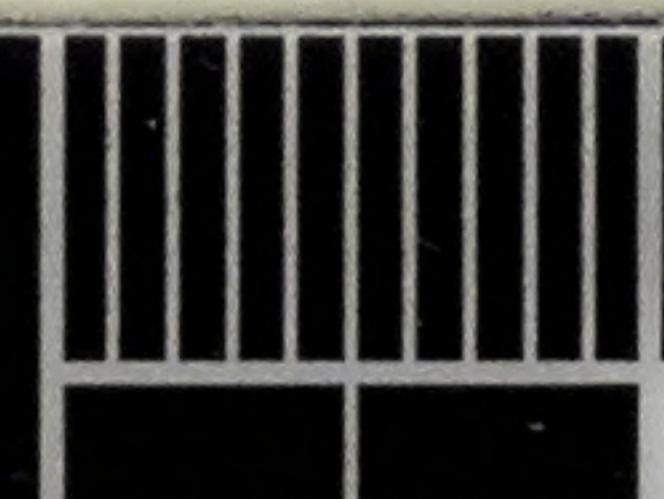
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52-6 Op. <sup>"</sup>virens? HOB Reaps. Jan 7<sup>th</sup> 1869  
a bushy plant  
with green fruit unripe, on face of joints  
bearing on the areolar a few spinules  
joint 7-9" x 5-6" - dimensions  
areolae  $1\frac{1}{4}$  -  $1\frac{1}{2}$  inches apart, large  
and oval, with stiff yellow bristles  
especially on upper edge  
spines on most joints, 3-5 stout,  
yellow angular, sometimes a little  
curved.

526 virens? gr. fol. with few spin.  
j. 7-9 x 5-6"

a  $1\frac{1}{4}$  -  $1\frac{1}{2}$  - large oval  
stiff stout yellow to penitent app. edge  
spines 3-5 stout yellow, angular,  
pointed as a little curved

~~1.8 mm thick 1 month  
6 angles trunk almost smooth  
3 trunk smooth  
1 elong. dark spot on areoles~~



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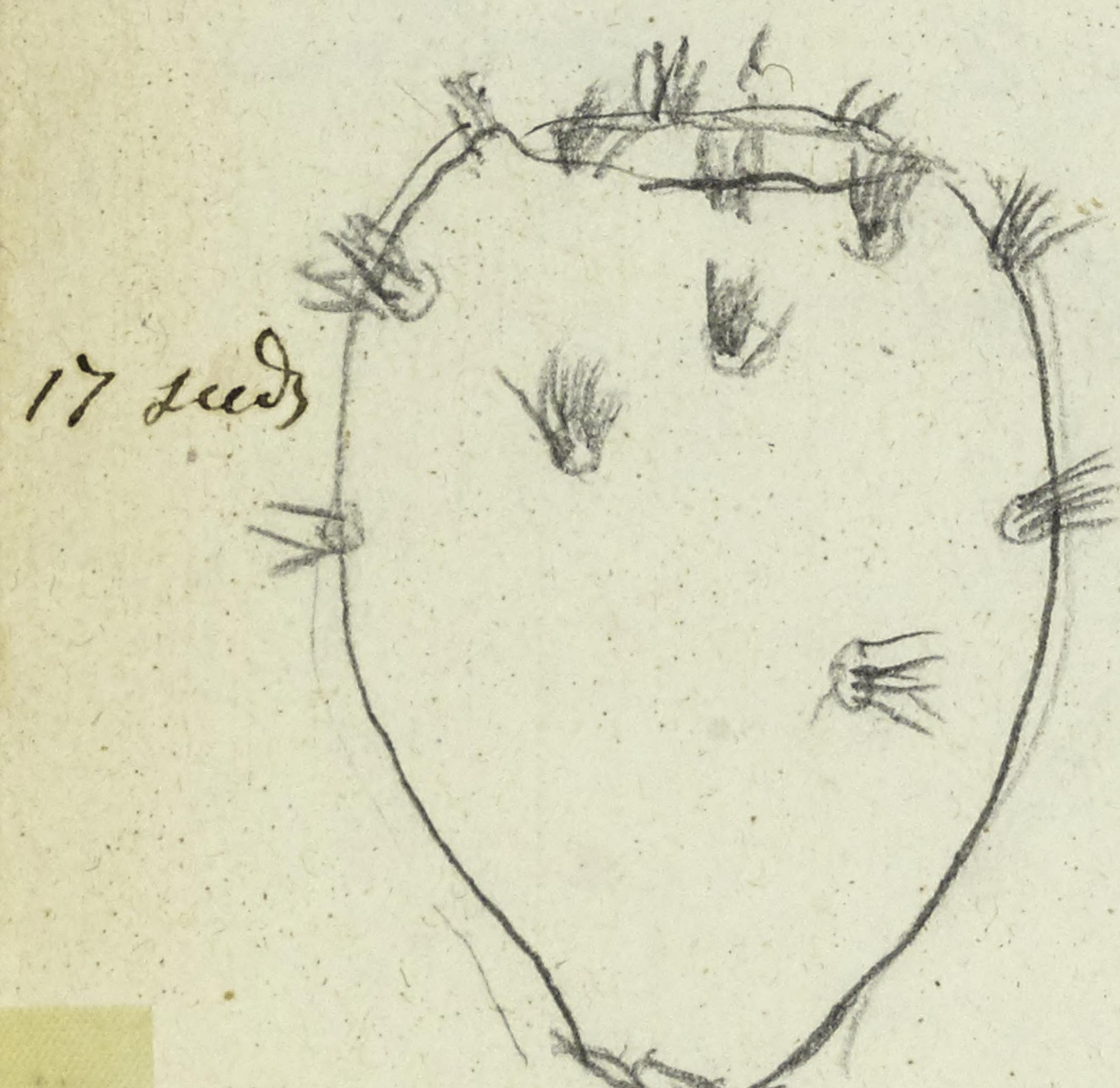
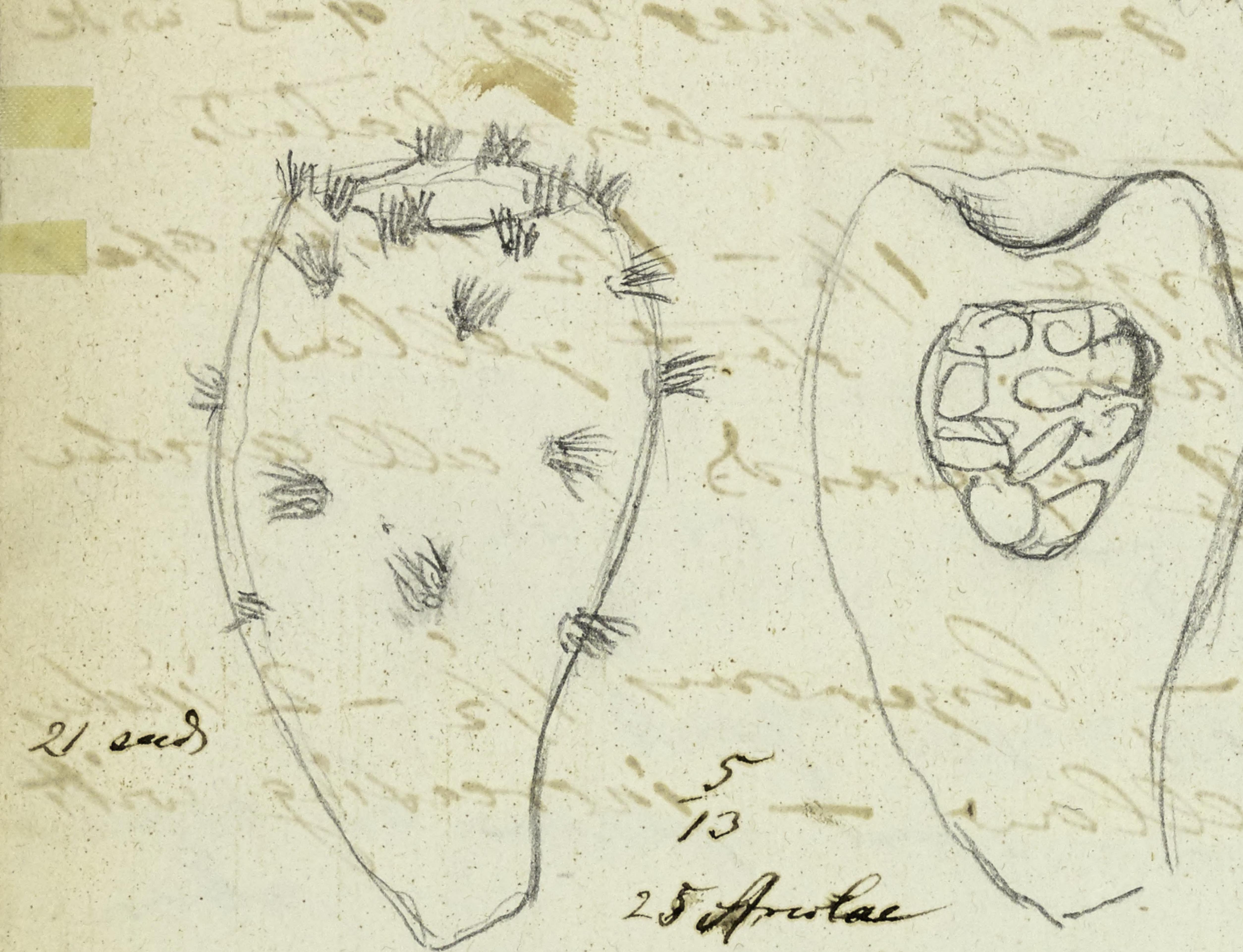
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"Opuntia stricta?"

~~"stricta?"~~

H. D. Bol. Neapol

Dec 16 1868



fruit ad yet ripe, quite green, in and out side but pulp around seed very scant, purple  
 fruit obovate clavate,  
 with base more or less naked — ~~the apex points~~  
 areolar few, about 22-25  
 in  $\frac{5}{13}$  arranged, scarcely  
 tubercled, but coat with  
 strong and numerous long  
 yellow bristles  
 cavity inside almost spherical  
 seeds few in the two sp. examined,  
 (17-21) umbilicus slightly  
 inferior lobiform.



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Bushy, 2-3 feet high; plant young.  
joints glaucous, 8-10 inches long, 4-5 wide  
scarcely, or not at all, tuberolated,  
aristole very large,  $1\frac{1}{2}$  -  $1\frac{1}{2}$  inches apart  
almost orbicular; stout yellow  
bottles especially upward . all aristole  
bearing 10 spines 5 scarcely 6  
a. spikes 3-5, papery  $1\frac{1}{2}$  - 2 inches  
long, stout yellow stout yellow with  
angle above

P 3-5 larger ones  $1\frac{1}{2}$  - 2" yellow  
stout as above with age.

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34 Operaria

size now

Terrea?

Hort Bot Neapol

Dec 27 1868



very oblate, truncate  
above (or umbilicus slightly  
impressed, broad) not  
tuberolated, with about  
20 areoles in  $\frac{5}{13}$  all  
over the part; small with  
2 distinct 'ridges'

cavity oblong.

all seeds in this fruit abortive

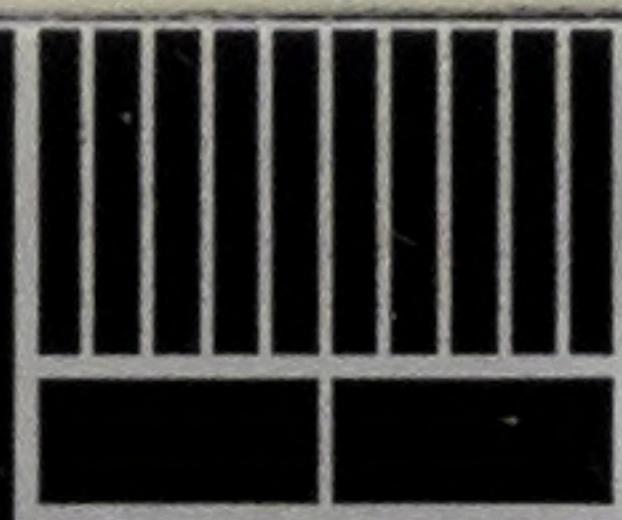
but another, decayed fruit being under  
the plant, had good seed, only 8 pieces  
though germinating very numerous

A small young plant, rather erect, 1 foot  
high.

Joints pink green, scarcely tuberolated  
 $3\frac{1}{2}$  - 4 inches long  $2\frac{1}{2}$  - 3" wide, broadly  
obovate

areoles large, oval, with numerous  
brown bristles; only upper ones with  
1-2 stout whitish + recto spiny,  
brown at base.

areoles and bristles increase with age



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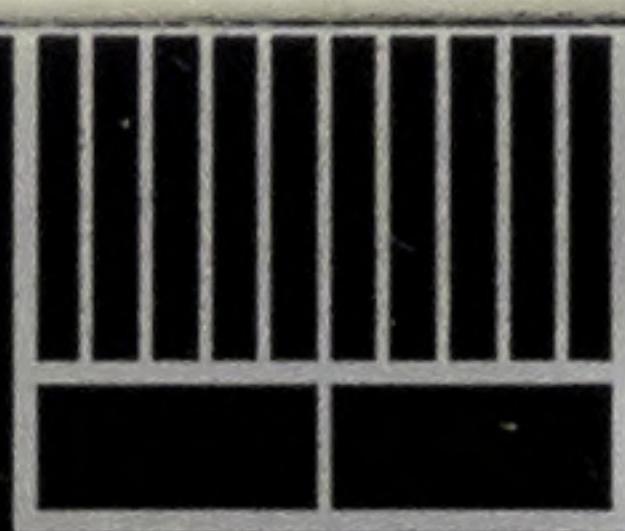


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small plant frag. 1' high  
8 ft. green, roundish tabl. 3 x 4" broad  
obovate.  
a large number with large numerous  
brown br. - old ones, very large & brittle  
uppers with 1-2 short tent  
wh. lvs. sp. at base

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37. *Opuntia orbiculata* "H. B. Neapol Jan 1<sup>st</sup> 1809  
probably correct" 1809

A small plant, only 2 feet high,  
larger joints 7 inches long and wide, thin, not tubercled.  
areoles  $1\frac{1}{2}$  -  $1\frac{3}{4}$  inches apart, orbicular,  
scarcely any bristles  
spines bristly, acicular, 2-4 in number  
larger ones 1- $1\frac{1}{2}$  inch long, yellowish white  
straight, disappearing with age.



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45 *Osmunda spirulifera*?

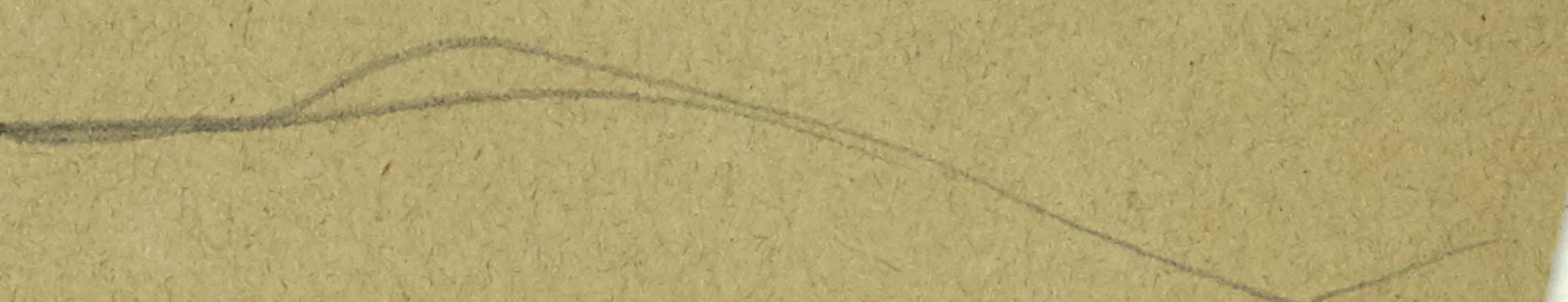
s. sp. adoxae

Hort Bot Napoli.

Jan 5 1869

A young plant,  $2\frac{1}{2}$  feet high,  
joints nearly orbicular, glaucous, 9-12  
inches by by 7-11 ~~wide~~ - thin  
areoles close, less than 1 inch apart, oval,  
brushes very short; ~~all~~  
sprays on almost all areoles, white with  
yellow bases, 1-3 - 5; larger ones circular,  
flexed, <sup>1 in - 1 in long</sup> smaller ones often brush-like.  
Old joints more broadly

Compare No 29



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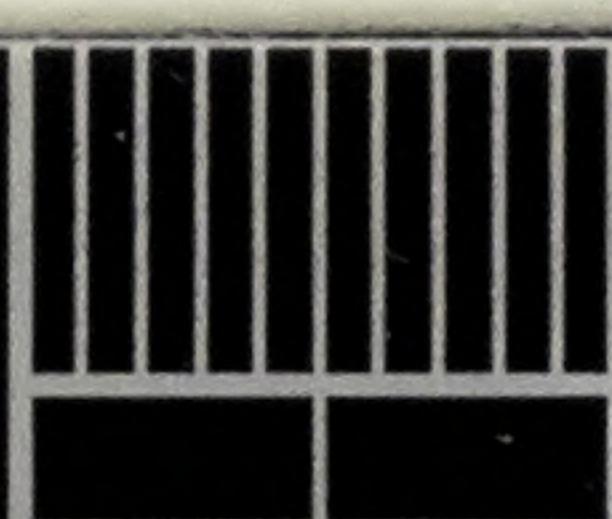
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GEORGE C. STURTEVANT HERBARIUM



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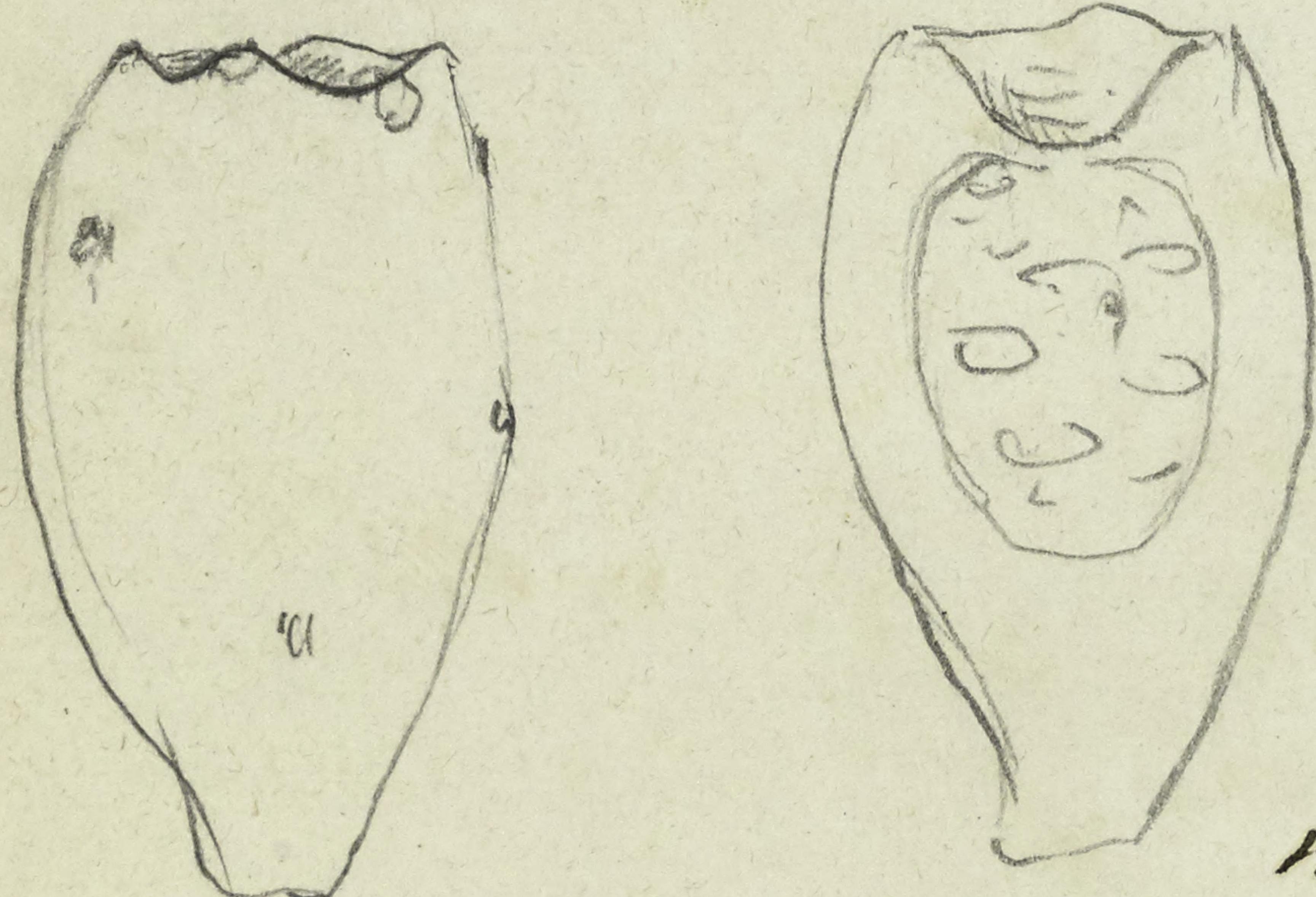
51 "Opuntia lanceolata" 51

Hort Bot Neapel

Dec 15<sup>th</sup> 1868

per prostrate, articulis  
obtusis lanceolatis  
~~oblongo rotundatis~~

12-15  
areolae



caulis obtuso-clavatis,  
basi sterni attenuatis  
umbilicis; inter carnis  
red peripunzibis  
glutinoso-carnosis  
nec succosis <sup>12-15</sup>  
areolis paucis (12-15)  
in superior parte parti  
~~exteriori~~ tuberculatis, mox  
nudatis & umbilicis infund-  
buliformi sub hemisphaerio  
impresso — cavitate parte obtusa  
seminalibus plenis (25-40)

Ad. O. vulgarem spectat.



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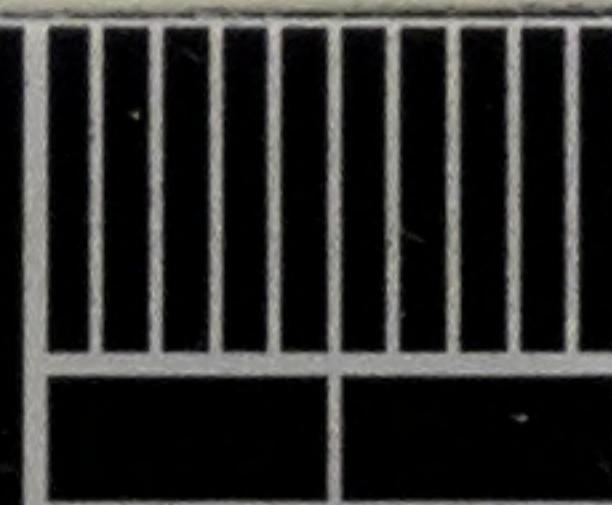
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plant 2 feet high, bushy, spreading  
joints 4-5 inches long by  $1\frac{1}{2}$  - 2 inches diameter  
tuberous, darker spots around tuberole.

Arcola arising fristly bearing no spines;  
1 inch apart; on old fruts, areolae  
increase in size, become circular, and  
bear a large number of elongated  
bristles.

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52 *Opuntia* *tuberculata*

H.B. Neap. Jan 5<sup>th</sup>  
1869

prostrate, now quite red at least on upper surface  
parts 4-6" x 2½ - 3", tuberculate, leaves  
darker  
areolate oval, bristles short 1" apart  
old ones larger, very easily  
single spines or mostly none,  
for fruit, turn over

53 *Opuntia* *intermedia*

same as last, prostrate, with orbicular  
4" x 3", areolate  $\frac{3}{4}$ " apart, <sup>not short</sup> single spray  
or mostly none; bristles much elongated  
with age — seed under the plant, as fruit seen.



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10 - 12 areoles  
=  $\frac{5}{13}$

Fruit obovate, brown red  
red outside, mesostigma  
not fleshy - umbilicus  
hemispherically immersed,  
or funnel shaped with mouth  
cavity oblong.  
areolas few (10 - 12) <sup>small</sup> down  
ous very small, but not wanting  
as in *Tuna* - all now at least  
without bristles.

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54. *Oenothera humilis*  
*vulgaris*

HHD Herbarium Jan 5 1889

Again same as 52 & 53, only smaller  
prostrate, almost spineless.  
Joints  $4 \times 2\frac{1}{2}$ " mostly  $3'' \times 2''$ .

58. *O. Italica*

exactly like the last.

52. 53. 54. 58 do not differ among themselves -  
52 more red than the others, but all are  
to somewhat -

57 is also quite similar, but may possibly  
be distinct - more elongated joints, more  
erect, and now quite green.



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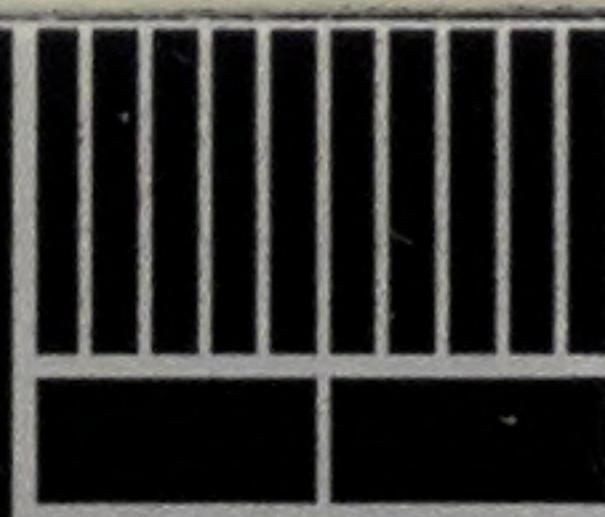
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72 *Opantes senilis* Host Bot Neap.

Jan 5 1869

spreading, 3-4' high -

Juvt. broadly obovate 10-12" x 7-10" thick  
arcular oblong small, . . . apart  
all spring, bristles short and few  
spines usually 5 or more, most all  
diplexed, or lateral, appressed, larger ones  
flattened, whitish - ~~as in older~~ -



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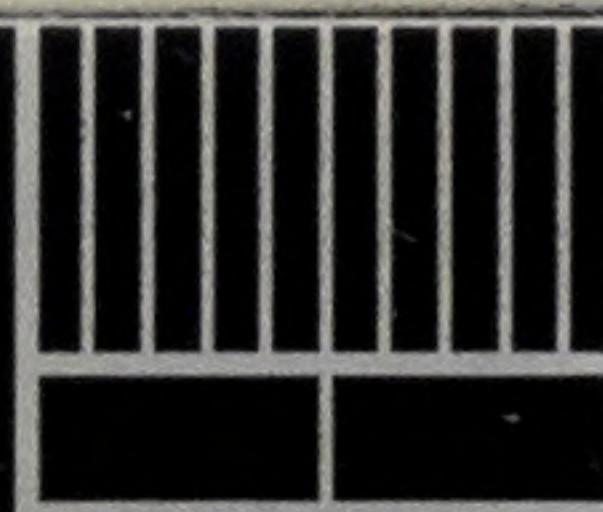


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